## North American Monsoon Onset and Maintenance Sensitivity to Land and Ocean Surface Conditions

## Figures

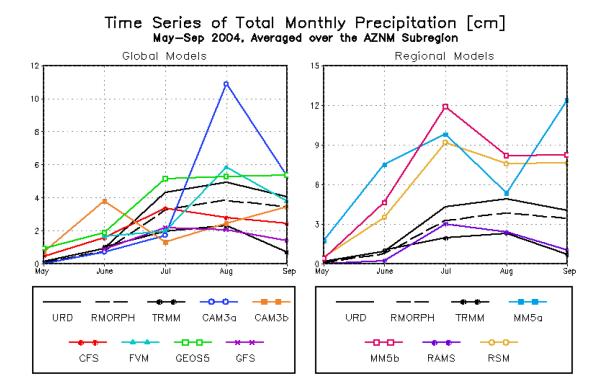


Figure 1 Monthly mean precipitation from the global models (left) and regional models (right) that were contributed to NAMAP2. The label "FVM" indicates the FvGCM model that we contributed.

## Time Series of Total Daily Precipitation [cm]

June 1st to Sept 9th, 2004; Averaged over the AZNM Subregion

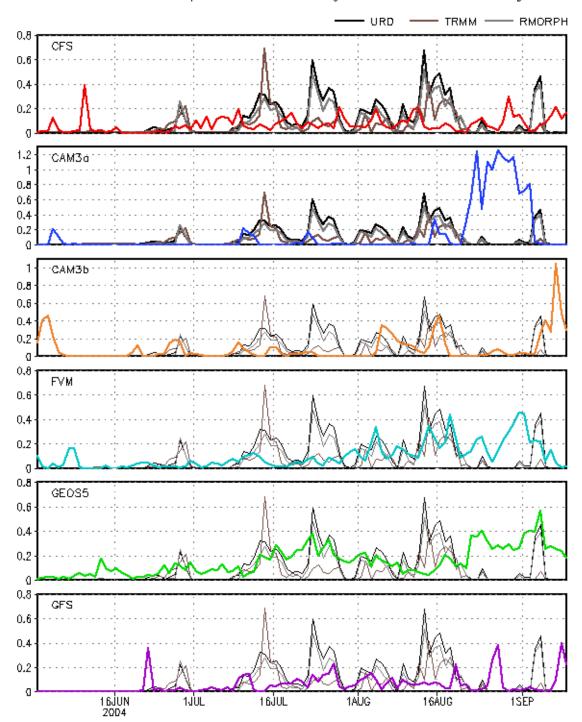


Figure 2 Daily time series of Arizona New Mexico (AZNM) precipitation from global models in NAMAP2. FVM indicates the FvGCM used in this project.

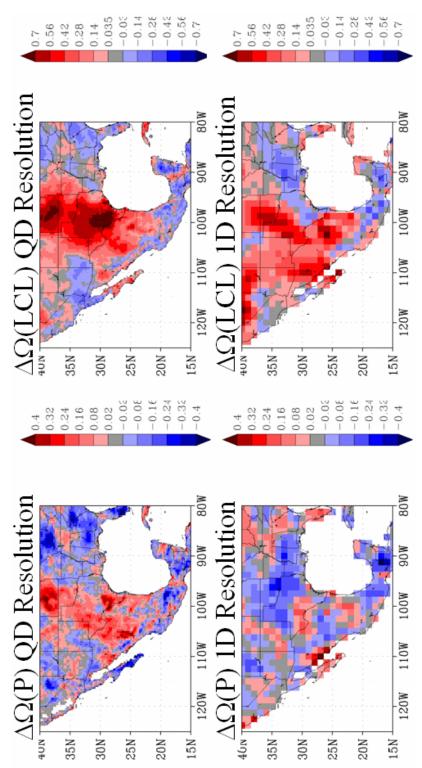


Figure 3 Change in the omega coupling diagnostic for precipitation and lifted condensation level (LCL) and for the 1 degree (1D) and  $\frac{1}{4}$  degree (QD) resolution experiments.

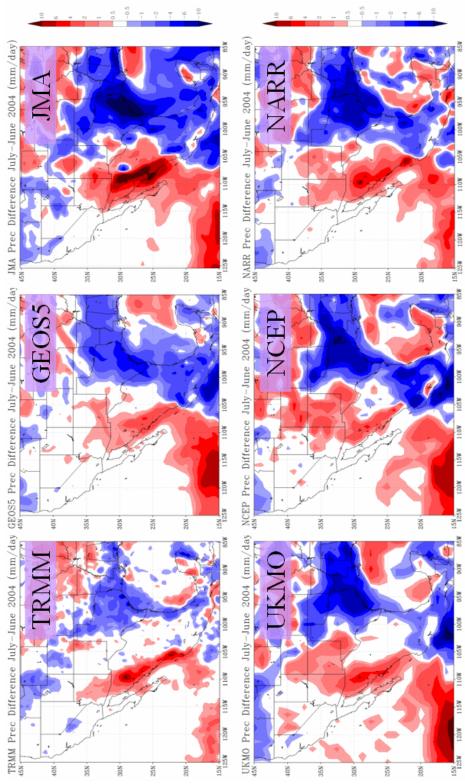


Figure X Monsoon Onset signature (precipitation difference for July – June 2004) for TRMM observations, NARR and 4 operational analysis systems.

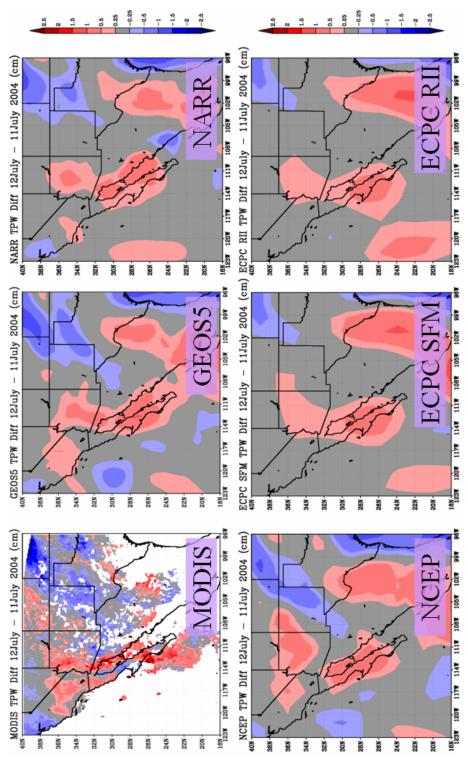


Figure X Difference of TPW between July 12 and July 11, near the beginning of a moisture surge event during NAME. The red values in Arizona show the surge. The panels show MODIS 1Km observations, NARR reanalysis, and operational analyses.